

bleeding ulcers who had taken aspirin the week before presentation had done so because of indigestion. Excluding these reduced the strength of the association of aspirin with bleeding peptic ulcer, but the risk for use in the previous 24 hours and in the previous week remained significantly raised. Because of the association between bleeding peptic ulcer and non-aspirin, non-steroidal anti-inflammatory drugs we determined whether use of these drugs affected our results for aspirin. Excluding patients and controls who had taken these drugs did not substantially alter the association. We therefore conclude that aspirin probably causes peptic ulcer bleeding in the elderly.

We cannot be sure, however, whether aspirin (or other non-steroidal anti-inflammatory drugs) cause existing ulcers to bleed or whether they cause acute mucosal injury which bleeds. The second possibility is plausible because anti-inflammatory drugs can cause acute gastric and duodenal injury with ulceration,<sup>16 17</sup> and the risk is higher for short term than regular use of aspirin. Adaptation of the mucosa may occur with continued intake, which might explain the decreased association of bleeding ulcers with long term use. On the basis of the present data and our recent findings<sup>1</sup> aspirin and other non-steroidal anti-inflammatory drugs seem to be responsible for about 35% of admissions for bleeding peptic ulcers of patients aged 60 and over and non-aspirin, non-steroidal anti-inflammatory drugs seem to be responsible for the greater proportion of these. In elderly people taking aspirin or other non-steroidal anti-inflammatory drugs who are admitted to hospital with bleeding from a gastric or duodenal ulcer there is at least a 70% chance that the drug caused the bleeding.

Our data do not allow us to distinguish between risks associated with different forms of aspirin or to say whether enteric coated or low dose forms, often used to prevent transient ischaemic episodes, are likely to be safe. We can, however, roughly calculate the risks of using aspirin. If the data obtained in our community controls are assumed to apply to the population of the United Kingdom then about 9% of the 11.5 million people aged 60 and over take aspirin in any one week and just over one million take on average four or five aspirins weekly. About 30 000 patients have haematemesis and melaena necessitating admission to hospital, and if our data are typical half of these patients have gastric or duodenal ulcers and two thirds of these, or about 10 000 in all, are aged 60 and over. This averages out at about 200 admissions each week. We previously calculated that non-aspirin, non-

steroidal anti-inflammatory drugs had an attributable risk of 0.22 and caused 60 cases of bleeding a year in the Nottingham community; extrapolation to the United Kingdom as a whole suggests that they cause 2000 cases a year.<sup>1</sup> The risk increased to 0.35 when aspirin was also taken into account, suggesting that among the 10 000 patients aged 60 and over with bleeding ulcers the bleeding is caused by aspirin or other non-steroidal anti-inflammatory drugs in 3000 cases and by aspirin alone in 1000. Spread over a year this averages out to 20 cases a week. When related to the total population taking aspirin (roughly one million, each taking four or five tablets weekly) this suggests that about one in every 250 000 aspirins taken is associated with bleeding and, assuming a 10% mortality, one in 2.5 million leads to death.

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## Castration at birth

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A great variety of injuries to bone and soft tissue have been attributed to the trauma of manipulation during vaginal breech delivery, especially during breech extraction. To my knowledge castration has not been reported before.

### Case report

A 25 year old Asian woman having her first baby booked at 16 weeks' gestation. At 32 weeks the presentation was noted to be breech, and this persisted despite external cephalic version at 34 weeks. Lateral x ray pelvimetry at 36 weeks showed an anteroposterior diameter of the inlet, mid-cavity, and outlet of

12.5 cm, 12.0 cm, and 11.5 cm respectively. The baby felt average in size, and the breech was engaged.

The patient came to the labour ward at 40 weeks with spontaneous rupture of the membranes and was having strong regular contractions. Vaginal examination showed a breech presentation at the level of the ischial spines, well applied to the cervix. The cervix was dilated to 3 cm, almost fully effaced, soft, and central. She had an epidural anaesthetic, and she reached full dilatation in six hours. Her progress in the second stage of labour was also normal, and the breech (in a left sacroanterior position) with extended legs was visible at the introitus after half an hour. A generous right posterolateral episiotomy was performed quickly as the patient was pushing and the breech was distending the perineum. Soon afterwards a pearly greyish pink spherical structure about 1.5 cm in diameter fell out of the vagina into the obstetrician's hand. The patient kept pushing, and another similar structure was passed out. There was no undue bleeding.

The baby's delivery and that of the placenta was spontaneous and complete without any help. The baby cried immediately, and his Apgar score was 10 at one and five minutes; he weighed 3000 g. During examination, however, his scrotum was found to be almost completely severed except for an anterior tag, and he was bleeding profusely. It was soon realised that the two pearly structures had been the baby's testicles, and the scrotum had been severed with the episiotomy. General surgeons were urgently called for, but nothing could be done except to stop the bleeding and stitch back the scrotum. Histological examination of the spherical structures confirmed that they were testicles.

#### Comment

In this case episiotomy was performed as an urgent procedure because the perineum was overstretched and likely to tear. Unfortunately, despite 30 years'

experience, the obstetrician protected the genitals rather quickly and seemingly inadequately. Both parents were stunned when they knew what had happened, especially as they had had great confidence in the obstetrician. Because of their deep religious beliefs they decided not to take any action against the obstetrician or the hospital. The obstetrician was horrified by what had happened, and all the attendants felt the same.

This possible complication should be emphasised so that it will not happen again. The obstetrician should always protect the genitals with one hand as a barrier and make sure that they are not caught between the hand and the perineum while the episiotomy is performed.

I was an onlooker in this case: the incident happened some time ago and the obstetrician concerned is now dead.

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## Mineral density of bone in the forearm in premenopausal women with fractured wrists

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We previously reported that the mineral density of bone in the forearm was significantly reduced in postmenopausal women who had had peripheral fractures compared with controls who had never had a fracture.<sup>1</sup> It was also reduced in women who had fractures before the menopause, suggesting that there might be an inverse relation between bone density and risk of fracture even within the normal range of bone density. To test this hypothesis we performed a prospective study of bone density in the forearm in premenopausal women with fractured wrists.

#### Patients, methods, and results

We measured the mineral density of bone in the non-fractured arm of 30 consecutive premenopausal women (mean age 30; range 16-49) who attended this hospital with a fractured wrist (12 of the right wrist and 18 of the left). Fractures resulting from road traffic accidents were excluded. All the women were menstruating regularly, and none was taking any drugs or had any disease that might predispose them to osteoporosis. The bone density in these patients was compared with that in 30 premenopausal controls who had never had a fracture and were matched for age (within three years) and for the forearm measured (right or left) to each of the patients. The results were also compared with measurements previously obtained in the right forearm in 77 premenopausal women (mean age 43; range 22-59).<sup>2</sup>

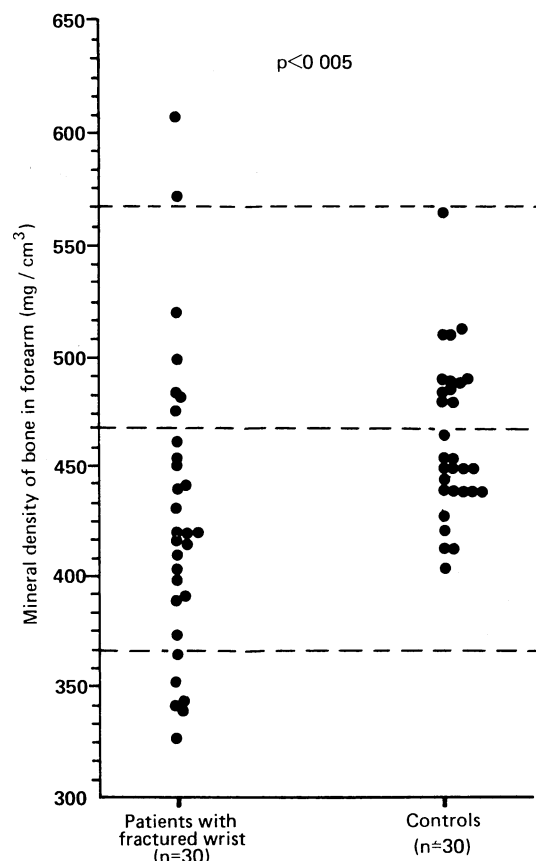
The mineral density of the distal radius and ulna was determined with a Molsgaard bone mineral analyser.<sup>1,2</sup> The source of  $\gamma$  rays was iodine-125. Calibration of the instrument gave the following conversion factor: mineral content of bone in the forearm = mineral content of bone  $\times 0.031$  g/cm<sup>2</sup>. The cross sectional area was calculated from the widths of the ulna and radius, assuming that the ulna was circular and that radial area was  $((15.2 \times \text{radial width}) - 95)$  mm<sup>2</sup>.<sup>2</sup> The mineral content was divided by total cross sectional area to give mineral density (mg/cm<sup>3</sup>). The measurements for the patients and the two control groups were compared by

the Wilcoxon matched pairs signed ranks test and  $\chi^2$  test.

The median bone mineral density in the 30 patients was 424 (range 330-610) mg/cm<sup>3</sup>, and in the 30 controls it was 456 (407-568) mg/cm<sup>3</sup> ( $p < 0.005$ ). The mean (SEM) measurement in the controls was 466 (6) mg/cm<sup>3</sup>, which was virtually identical with the mean measurement of 469 (6) mg/cm<sup>3</sup> in the 77 premenopausal women previously reported.<sup>2</sup> Bone mineral density was below the mean value in these 77 premenopausal women, in 23 of the 30 patients, and below the lower limit in six of them ( $p < 0.05$ ) (figure).

#### Comment

We found that the mineral density of bone in the forearm was significantly reduced in premenopausal



Mineral density of bone in forearm of 30 premenopausal women with fractured wrist and 30 controls matched for age. Broken lines indicate mean (2 SD) values in 77 premenopausal women<sup>2</sup>